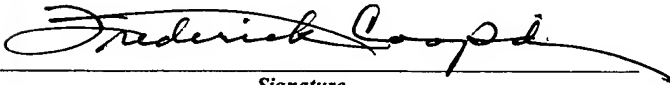


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TRANSMITTAL OF APPEAL BRIEF (Large Entity)					Docket No. WN-2622	
In Re Application Of <b>Osamu Yamashita, et al.</b>						
Application No. 10/714,672	Filing Date November 18, 2003	Examiner Charles Terrell Shedrick	Customer No. 21254	Group Art Unit 2617	Confirmation No. 2304	
Invention: <b>CELLULAR NETWORK ACQUISITION METHOD AND APPARATUS</b>						
<p style="text-align: center;"><u>COMMISSIONER FOR PATENTS:</u></p> <p>Transmitted herewith in triplicate is the Appeal Brief in this application, with respect to the Notice of Appeal filed on <b>May 15, 2006</b></p> <p>The fee for filing this Appeal Brief is:      <b>\$500.00</b></p> <p><input checked="" type="checkbox"/> A check in the amount of the fee is enclosed.</p> <p><input type="checkbox"/> The Director has already been authorized to charge fees in this application to a Deposit Account.</p> <p><input checked="" type="checkbox"/> The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No.    <b>50-0481 (deficiencies only)</b></p> <p><input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.</p> <p><b>WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.</b></p> <div style="display: flex; justify-content: space-between; align-items: flex-end;"><div style="width: 45%;"><p style="text-align: center;">Signature</p><p><b>Frederick E. Cooperrider, Esq.</b> Registration No. 36,769</p><p><b>McGinn Intellectual Property Law Group, PLLC</b> 8321 Old Courthouse Road, Suite 200 Vienna, Virginia 22182-3817 (703) 761-4100</p></div><div style="width: 45%; text-align: right;"><p>Dated:    <b>July 17, 2006</b></p></div></div> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"><p>I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on</p><p>_____</p><p style="text-align: center;">(Date)</p><p style="text-align: center;">Signature of Person Mailing Correspondence</p><p style="text-align: center;"><b>HAND DELIVERED</b></p><p style="text-align: center;">Typed or Printed Name of Person Mailing Correspondence</p></div> <div style="display: flex; justify-content: space-between; align-items: flex-end;"><div style="width: 45%;">CC:</div><div style="width: 45%; text-align: right;"><p>P30LARGE/REV06</p></div></div>						



Appellants' Brief on Appeal  
S/N: 10/714,672

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of:

Osamu Yamashita, et al.

Serial No.: 10/714,672

Group Art Unit: 2617

Filed: November 18, 2003

Examiner: Shedrick, Charles Terrell

For: **CELLULAR NETWORK ACQUISITION METHOD AND APPARATUS**

Honorable Commissioner of Patents  
Alexandria, VA 22313-1450

**APPELLANTS' BRIEF ON APPEAL**

Sir:

Appellants respectfully appeal the rejection of claims 1-4, 6-14, and 16-20 in the Office Action mailed on February 14, 2006. A Notice of Appeal was timely filed on May 15, 2006.

**I. REAL PARTY IN INTEREST**

The real party in interest is NEC Corporation, assignee of 100% interest of the above-referenced patent application.

**II. RELATED APPEALS AND INTERFERENCES**

There are no other appeals or interferences known to Appellants, Appellants' legal representative or Assignee which would directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

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Docket WN-2622 (GOT.081)

### **III. STATUS OF CLAIMS**

Claims 1-4, 6-14, and 16-20, all of the claims presently pending in the application, stand rejected on prior art grounds.

Claims 1, 2, 4, 8-11, 13, 14, 17, and 18 stand rejected under 35 USC §103(a) as unpatentable over WO 02/37889 to Ramesh et al., further in view of US Patent Publication 2004/0058650 to Palenius et al. Claims 3 and 12 stand rejected under 35 USC §103(a) as unpatentable over Ramesh/Palenius, further in view of US Patent Publication 2004/0203745 to Cooper. Claims 7, 16, 19, and 20 stand rejected under 35 USC §103(a) as unpatentable over Ramesh/Palenius, further in view of US Patent Publication 2004/0224684 to Dorsey et al.

The rejections are being appealed for all pending claims.

### **IV. STATUS OF AMENDMENTS**

A Request for Reconsideration and Withdrawal of Final Rejection under 37 CFR §1.116 was filed on April 4, 2006. In the Advisory Action mailed April 21, 2006, the Examiner indicated that the rejections were maintained. The claims in the Appendix reflect the version of the claims of the Amendment Under 37 CFR §1.111 as filed on November 16, 2005.

### **V. SUMMARY OF CLAIMED SUBJECT MATTER**

As explained at line 28 of page 4 through line 16 on page 5, Appellants have recognized that the 3GPP specification requirement for five measurements for each frequency within the frequency band be obtained within 3 seconds as being equally spaced does not necessarily mean that each of the large number of measurements be equally spaced from each other. The present invention uses the realization that only the measurements conducted on the same frequency need to be equally spaced (lines 8-13 on page 5).

Moreover, as explained at lines 12-18 of page 3, this technique allows a second band of frequencies to be searched, either within the same RAT (radio technology) or in another RAT, as well as second-stage search operations.

Therefore, Appellants' invention, as disclosed and claimed in, for example, independent claim 1 (independent claim 10 has corresponding language), is directed to Docket WN-2622 (GOT.081)

a method of determining a most suitable cell during network acquisition for a cellular communications device, based on a characteristic of signals received from a plurality of cells, the signals from each cell being provided over a band of frequencies.

A series of measurements of the characteristic for each frequency of a first frequency band is taken, so as to obtain an average measurement value of the characteristic for each frequency of the first frequency band, wherein the series of measurements on the first frequency band are equally spaced in time, with equal time intervals therebetween.

During the time intervals between measurements for the first frequency band, a series of measurements of the characteristic for each frequency of a second frequency band is taken (lines 5-9 on page 6).

Thus, as shown in the Figure, during the four equal-time intervals 12,14,16,18 shown on the horizontal axis over which a first frequency 1 is to be measured five times A,B,C,D,E, the present inventors have recognized that all remaining frequencies (e.g., 2 through n, shown in the vertical axis) of the RAT under evaluation can be rapidly and sequentially measured immediately after each respective measurement A,B,C,D,E of the first frequency 1.

As further explained at lines 17-24 on page 5 (and reflected in the independent claims), there are exemplarily (at least) two bands of frequencies represented in the n = 546 frequencies shown in the vertical axis: the EGSM 900 band contains 172 frequencies, and the GSM 1800 band contains 374 frequencies. Alternatively, as mentioned above, the second band might be for a second RAT.

## **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Upon further review, it is clear that the rejection currently of record is deficient for even more reasons that previously identified during prosecution. Therefore, Appellants present various issues for review by the Board of Patent Appeals and Interferences, as follows:

ISSUE 1: Whether the plain meaning of the independent claims is satisfied by the primary reference Ramesh, even if all secondary references currently of record are combined;

ISSUE 2: Whether primary reference Ramesh can be modified in the manner urged in the rejection currently of record without improperly changing its principle of operation;

ISSUE 3: Whether secondary references Palenius and Cooper are properly combinable with primary reference Ramesh unless they are considered analogous art or reasonably related to the problem of the present invention; and

ISSUE 4: Whether the rejection based on secondary reference Dorsey can be maintained when its U.S. filing date precludes it as prior art against the present application because of the foreign priority date of the present application.

## **VII. ARGUMENTS**

### **ISSUE #1: The plain meaning of the claim language relative to the primary reference**

Appellants submit that the rejection under 35 U.S.C. § 103(a) cannot be maintained because it fails to properly correlate terminology and, when such correlation is made, this reference has more deficiencies than presently identified by the rejection currently of record.

#### **A. The Examiner's position on the deficiencies of the primary reference**

In final paragraph on page 3 and the first paragraph on page 4 of the Office Action mailed on February 14, 2006, the Examiner seemingly alleges that, relative to the independent claims, the only deficiency of primary reference Ramesh is that it fails to "... specifically teach during the time intervals between measurements for said fi[r]st frequency band, taking a series of measurements of said characteristic for each frequency of a second frequency band."

#### **B. Appellants' position on the deficiencies of primary reference Ramesh**

Appellants submit that the rejection currently of record fails to properly correlate the terminology of the independent claims with the concepts and terminology

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taught in the primary reference and, therefore, fails to meet the initial burden of a *prima facie* rejection, since there are various other problems than the single alleged deficiency.

More specifically, first, the present wording of the independent claims requires that the technique be used for selecting the most suitable cell. In contrast, Ramesh clearly describes its technique as directed to selection of the most suitable channel.

Second, the independent claims clearly define that the frequencies being analyzed are included in at least two distinct frequency bands. In the example discussed on page 5 of the specification, the diagram exemplarily shows  $n = 546$  different frequencies being measured in the first RAT. There are exemplarily two bands of frequencies being included in these 546 frequencies (172 frequencies in the EGSM 900 band and 374 frequencies in the GSM 1800 band). Alternatively, there may be two RATs involved.

In contrast, primary reference Ramesh is based upon the concepts of “carriers” and “channels”, presumably because that reference addresses the EDGE Compact standard, described at lines 21-22 of page 4 as being a variant of the GSM standard that is exemplarily used to discuss the present invention. The flowchart shown in Figure 7 of Ramesh is clearly oriented in the unit of “carrier” and further demonstrates the division of carriers into “groups”. There is no indication in Ramesh that “frequency” and “carrier” are intended as being equivalent, but it appears that a “carrier” involves both a frequency and a time slot, and it seems clear that Ramesh does not intend the selection of a “carrier” to be equivalent to the selection of a “cell”.

Nor is there any indication in the rejection currently of record that Ramesh addresses two distinct bands of frequencies, nor is there any indication that the search being conducted in Ramesh is a simple search of frequencies, as required by the plain meaning of the independent claims.

Appellants submit that this difference in terminology results because the purpose of Ramesh is that of selecting a “channel” as defined in the EDGE Compact standard, whereas, the present invention is defined in the independent claims as selecting the “... most suitable cell during network acquisition”, as oriented toward at least the GSM bands and, possibly, different modes, including GSM and UMTS (e.g., see claims 7 and 16).

Indeed, the description at lines 9-11 of page 2, Ramesh appears to attempt to clarify that its method is intended specifically for channel selection in the EDGE standard. Moreover, since geographic regions or “cells” are clearly described in lines 3-4 of page 5 of Ramesh as being a concept different from “carrier”, it is clear that selection of a “cell” is not equivalent to selection of a “carrier” in Ramesh.

Therefore, Appellants submit that the rejection currently of record fails to properly address the plain meaning of the claim language of even the independent claims 1 and 10, and that the rejection, therefore, fails the initial burden of a *prima facie* rejection until such analysis is properly made of record, including an analysis of whether “channel” selection is equivalent to “cell” selection.

**ISSUE #2: Whether primary reference Ramesh can be modified without changing its principle of operation**

Appellants submit that, until the terminology discrepancy noted above is properly addressed on the record, the next issue is whether it would then make sense to consider modifying Ramesh to use the same technique used to select a carrier to also be used to select a “cell”, as that term is defined in lines 3 and 4 of page 5 of that reference itself.

**ISSUE #3: Whether secondary references Palenius and Cooper are properly combinable with primary reference Ramesh**

The rejection currently of record attempts to define all secondary references as properly combinable by summarily declaring them as “In the same field of endeavor....” and then reciting that it, therefore, is obvious to simply incorporate the element conceded as missing.

Appellants submit that such conclusory rationale fails to meet the standard of a properly combinable secondary reference and that the rejection fails to meet the initial burden of a *prima facie* rejection until the proper standard of modifying a primary reference has been addressed on the record.

More specifically, primary reference Ramesh is clearly directed to selection of a channel, indicating a purpose of initial contact to a network. In contrast, as Appellants

have previously pointed out on the record, secondary reference Palenius, as indicated in paragraphs [0014] and [0033] is not directed to an initial network acquisition.

Also in contrast to the purpose of the primary reference Ramesh, secondary reference Cooper has the different purpose of selecting which communication system should be acquired.

Therefore, Appellants submit that, because of the different purposes, it is improper to attempt to modify the primary reference Ramesh. The rejection currently of record attempts to justify the combination of these secondary references by reciting a purpose that would appear to already be satisfied in Ramesh or would change the purpose of the Ramesh.

For example, in the urged combination with Palenius, wherein the Examiner attempts to argue that there would be “efficient cell search”, Ramesh is clearly directed toward an efficient channel search, not a cell search and there is no indication in the rejection why Ramesh would be considered by one having ordinary skill in the art as being inefficient in its search.

Relative to secondary Cooper, the Examiner first incorrectly attempts to define “signal to noise ratio” as satisfying the plain meaning of the terminology “derivative of signal strength”, wherein, to one having ordinary skill in the art, the term “derivative” means a rate of change. Second, Cooper addresses the purpose of deciding which system is to be connected to, whereas primary reference Ramesh is directed to the different purpose of connecting to a network, rather than deciding which network to connect to.

Appellants submit that, because of these different purposes, it would be improper to combine them with Ramesh. Specifically, Appellants submit that the Examiner attempts to consider the elements conceded as missing in the primary reference to be abstract ideas that are freely combinable by merely locating the element in another prior art reference. Appellants submit that the different purposes of the secondary references precludes such simplistic combination.



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**ISSUE #4: Whether secondary reference Dorsey qualifies as a prior art reference when its U.S. filing date of May 7, 2003, is later than the UK foreign priority date of November 19, 2002, for the present application.**

The priority document was filed on July 12, 2004. The Examiner has yet to acknowledge receipt of the same.

Appellants submit that, as a matter of law, Dorsey fails to qualify as prior art against the present application.

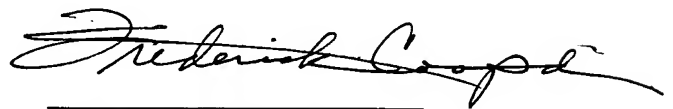
**VIII. CONCLUSION**

In view of the foregoing, Appellants submit that claims 1-4, 6-14, and 16-20, all the claims presently pending in the application, are clearly patentably distinct from the prior art of record and in condition for allowance. Thus, the Board is respectfully requested to remove all rejections of claims 1-25.

Please charge any deficiencies and/or credit any overpayments necessary to enter this paper to Attorney's Deposit Account number 50-0481.

Respectfully submitted,

Dated: 7/17/06



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**CLAIMS APPENDIX**

Claims, as reflected upon entry of the Amendment Under 37 CFR §1.111, filed on November 16, 2005, are as follows.

1. (Previously presented) A method of determining a most suitable cell during network acquisition for a cellular communications device, based on a characteristic of signals received from a plurality of cells, the signals from each cell being provided over a band of frequencies, said method comprising:

taking a series of measurements of said characteristic for each frequency of a first frequency band, so as to obtain an average measurement value of said characteristic for each frequency of said first frequency band, wherein the series of measurements on said first frequency band are equally spaced in time, with equal time intervals therebetween; and

during the time intervals between measurements for said first frequency band, taking a series of measurements of said characteristic for each frequency of a second frequency band.

2. (Previously presented) A method as claimed in Claim 1, wherein said characteristic comprises the signal strength.

3. (Previously presented) A method as claimed in Claim 1, wherein said characteristic comprises a derivative of the signal strength.

4. (Previously presented) A method as claimed in Claim 1, wherein said series of measurements comprises a series of five measurements.

5. (Previously presented) A method as claimed in Claim 1, wherein each of said equal time intervals is in the order of 0.5 second.

6. (Canceled)

7. (Previously presented) A method as claimed in Claim 19, wherein one operating mode comprises GSM, and the other operating mode comprises UMTS.

8. (Previously presented) A method as claimed in Claim 1, wherein said first and second frequency bands operate in a single operating mode, and second stage search operations are conducted during said equal time intervals.

9. (Previously presented) A method as claimed in Claim 8, wherein said second stage operations are conducted on cells found to have high signal strength after the first measurement.

10. (Previously presented) A cellular communications device for determining a most suitable cell during network acquisition for a cellular communication device, based upon a characteristic of signals received from a plurality of cells, the signals from each cell being provided over a band of frequencies, said cellular communication device comprising:

a first unit for taking a series of measurements of the characteristic for each frequency of a first frequency band, so as to obtain an average measurement value of

the characteristic for each frequency of the first frequency band, wherein the series of measurements on the first frequency band are equally spaced in time, with equal time intervals therebetween; and

a second unit for taking a series of measurements of the characteristic for each frequency of a second frequency band during the time intervals between the measurements for the first frequency band.

11. (Previously presented) A device as claimed in Claim 10, wherein said characteristic comprises the signal strength.

12. (Previously presented) A device as claimed in Claim 10, wherein said characteristic comprises a derivative of the signal strength.

13. (Previously presented) A device as claimed in Claim 10, wherein said series of measurements comprises a series of five measurements.

14. (Previously presented) A device as claimed in Claim 10, wherein each of said equal time intervals is in the order of 0.5 second.

15. (Canceled)

16. (Previously presented) A device as claimed in Claim 20, wherein one operating mode comprises GSM, and the other operating mode comprises UMTS.

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17. (Previously presented) A device as claimed in Claim 10, wherein said device is for use with a single mode cellular communications device, and second stage search operations are conducted during said equal time intervals.

18. (Previously presented) A device as claimed in Claim 17, wherein said second stage operations are conducted on cells found to have high signal strength after the first measurement.

19. (Previously presented) A method as claimed in Claim 1, wherein said first and second frequency bands operate in different operating modes.

20. (Previously presented) A device as claimed in Claim 10, wherein said first and second frequency bands operate in different operating modes.

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**EVIDENCE APPENDIX**

(NONE)

**RELATED PROCEEDINGS APPENDIX**

(NONE)